

tests may be positive. Alveolar damage may be considerable and lead to extensive interstitial fibrosis.

HA has recently been reported in office workers exposed to an air conditioner whose filter was contaminated with a thermophilic actinomycete similar to the organism whose spores are responsible for farmer's lung disease, and in others exposed to home humidifiers also contaminated with a thermophilic actinomycete. Such reports suggest that HA may be more widespread than was previously believed. Prompt diagnosis is important because the prognosis grows worse with continued exposure. Although adrenocortical steroids are useful during the acute process, ultimate success depends upon ending of exposure to the dust responsible.

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Enzyme-Containing Detergents as a Cause of Allergic Disease

SHORTLY AFTER THE INTRODUCTION of proteolytic enzymes from *Bacillus subtilis* in laundry detergents in 1967, reports began to appear of respiratory and nasal symptoms in workers exposed to high concentrations of the enzyme dust, including sneezing, rhinorrhea, wheezing, dyspnea and fatigue. These typically showed a biphasic pattern, with choking and cough beginning immediately after exposure and lasting a short time, followed in six to eight hours by more severe symptoms. At first, recovery was complete by the next day, but as exposure continued the symptoms became correspondingly more lasting.

Pulmonary function and gas studies showed that in addition to obstructive lung disease a reduction in carbon monoxide transfer occurred.

All workers who have symptoms following exposure to the enzymes give strongly positive wheal and flare reactions when skin tested with the enzyme known variously as alcalase, Maxatrase or subtilisin. However, a significant number who have no symptoms on exposure also react to skin tests, as do some persons who have never been exposed to the enzyme.

How much of a hazard the home use of enzyme containing detergents presents is not yet known. So far there have been only a few reports of nasal irritation. However, prolonged use in the home may lead in time to a significant amount of clinical sensitivity. It has been postulated that all persons may become sensitized given a sufficient exposure. Moreover, persons deficient in serum alpha-1 antitrypsin may be susceptible to the direct toxic effects of the proteolytic enzymes.

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Bee Sting Allergy

ALLERGIC REACTION TO BEE STING KILLS more people than snake bite. Of 460 documented cases of deaths from venomous creatures, 229 (50 percent) were due to bee stings. The honeybee accounted for 124 (27 percent) deaths, two-thirds of which occurred within one hour and 96 percent within five hours. Usually the patient had had reactions to previous bites.

Twenty-six hundred non-fatal reactions to bee sting were categorized as follows: 347 patients (13 percent) had local immediate reactions; 421 (16 percent) had slight general reactions with hives or itching of other parts of the body; 1135 (44 percent) had more severe generalized hives